

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A liquid crystal ~~Liquid Crystal~~ film or layer with homeotropic alignment,
wherein said homeotropic alignment is achieved by an aligning layer on a substrate,
and wherein said aligning layer is an -a-smooth ~~a-smooth~~ Al_2O_3 layer
with a surface sufficiently smooth such that liquid crystal films formed thereon can be removed in one piece.
2. (currently amended) A liquid ~~Liquid~~-crystal film or layer according to claim 1 wherein the substrate is a polymeric material.
3. (currently amended) A liquid ~~Liquid~~-crystal film or layer according to claim 2 wherein substrate is a plastic sheet or film.
4. (currently amended) A liquid ~~Liquid~~-crystal film or layer according to claim 1 wherein the substrate prior to its coating with the alignment layer or its precursor is subjected to a corona discharge.
5. (cancelled)
6. (cancelled)
7. (cancelled)
8. (cancelled)
9. (previously presented) A process of fabricating a homeotropically oriented liquid crystal film or layer according to claim 1 which comprises applying an aligning layer as defined in claim 1 on a substrate.
10. (currently amended) An electoptical ~~electoptical~~ electrooptical system which contains a liquid crystal film or layer according to claim 1.

11. (previously presented) A liquid crystal layer as in claim 1, wherein said aligning layer is a thin transparent Al_2O_3 coating.

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (currently amended) An aligning layer for a liquid crystal film or layer which provides homeotropic alignment, said aligning layer comprising ~~an a-smooth~~ Al_2O_3 layer with a surface sufficiently smooth such that liquid crystal films formed thereon can be removed in one piece.

16. (previously presented) An aligning layer as in claim 15 which comprises a thin transparent Al_2O_3 coating.

17. (cancelled)

18. (cancelled)

19. (Cancelled)

20. (currently amended) A liquid crystal ~~Liquid-Crystal~~ film or layer with homeotropic alignment

wherein said homeotropic alignment is achieved by an aligning layer on a substrate,

wherein said aligning layer is ~~an aluminum-coating or a-smooth~~ Al_2O_3 layer, with a surface sufficiently smooth such that liquid crystal films formed thereon can be removed in one piece,

and wherein the substrate is comprised of plastic.

21. (cancelled)

22. (cancelled)

23. (cancelled).

- 24. (cancelled)
- 25. (cancelled)
- 26. (cancelled)
- 27. (cancelled)
- 28. (cancelled)
- 29. (cancelled)

30. (currently amended) A liquid ~~Liquid~~ crystal film with homeotropic alignment wherein said ~~hemitropic~~ homeotropic alignment is achieved by an aligning layer on a substrate wherein said aligning layer is an ~~a smooth~~ Al_2O_3 layer with a surface sufficiently smooth such that liquid crystal films formed thereon can be removed in one piece.

31. (currently amended) A liquid ~~Liquid~~ crystal film according to claim 30 wherein the substrate is a polymeric material.

32. (currently amended) A liquid ~~Liquid~~ crystal film according to claim 31 wherein the substrate is a plastic sheet or film.

33. (currently amended) A liquid ~~Liquid~~ crystal film according to claim 30 wherein the substrate prior to its coating with the alignment layer or its precursor is subjected to a corona discharge.

34. (currently amended) A process ~~Process~~ of fabricating a homeotropically oriented liquid crystal film according to claim 30 which comprises applying an aligning layer as defined in claim 30 on a substrate.

35. (currently amended) An ~~electroptical~~ electrooptical system which contains a liquid crystal film according to claim 30.

36. (previously presented) A liquid crystal film as in claim 30, wherein said aligning layer is a thin transparent Al_2O_3 coating.

37. (currently amended) A liquid ~~Liquid~~ crystal film as in claim 30 prepared from a layer comprising one or more polymerizable mesogenic compounds.

38. (currently amended) A liquid ~~Liquid~~ crystal film as in claim 30 prepared from a mixture comprising reactive mesogenic compounds of formula I



wherein

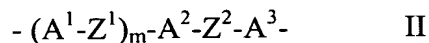
P is a polymerizable group

Sp is a spacer group having 1 to 20 C atoms,

X is a group selected from -O-, -S-, -CO-, -COO-, -OCO-, -OCO-O- or a single bond;

n is 0 or 1,

MG is a mesogenic or mesogeneity supporting group, according to formula II



wherein A^1 , A^2

and A^3 are independently from each other 1,4-phenylene in which, in addition, one or more CH groups may be replaced by N, 1,4-cyclohexylene in which, in addition, one or two non-adjacent CH_2 groups may be replaced by O and/or S, 1,4-cyclohexenylene or naphthalene-2,6-diyl, it being possible for all these groups to be unsubstituted, mono- or poly-substituted with halogen, cyano or nitro groups or alkyl, alkoxy or acyl groups having 1 to 7 C atoms wherein one or more H atoms may be substituted by F or Cl,

Z^1 and Z^2 are each independently -COO-, -OCO-, CH_2CH_2 -, -OCH₂-, -CH₂O-, -CH₂=CH-, -C≡C-, -CH=CH-COO-, -CO-CH=CH- or a single bond

and

m is 0, 1 or 2,

and

R is an alkyl radical with up to 25 C atoms which may be unsubstituted, mono-or

polysubstituted by halogen or CN, it being also possible for one or more non-adjacent CH₂ groups to be replaced, in each case independently from one another, by -O-, -S-, -NH-, -N(CH₃)-, -CO-, -COO-, -OCO-, -OCO-O-, -S-CO-, -CO-S- or -C≡C- in such a manner that oxygen atoms are not linked directly to one another, or alternatively R is halogen, cyano or has independently one of the meanings given for P-(Sp-X)_n.

39. (currently amended) A liquid ~~Liquid~~ crystal film according to claim 30 wherein the surface of the smooth Al₂O₃ layer is smoother than aluminum oxide coatings obtained by evaporation methods or sputtering.

40. (currently amended) A liquid ~~Liquid~~ crystal film or layer according to claim 1 wherein the surface of the smooth Al₂O₃ layer is smoother than aluminum oxide coatings obtained by evaporation methods or sputtering.

41 (new) A liquid crystal film or layer with homeotropic alignment, wherein said homeotropic alignment is achieved by an aligning layer on a polymeric substrate, and wherein said aligning layer is an Al₂O₃ layer with fewer pores than aluminum oxide layers prepared by evaporation methods or sputtering.

42. (new) A liquid crystal film or layer with homeotropic alignment, wherein said homeotropic alignment is achieved by an aligning layer on a substrate, and wherein said aligning layer comprises a thin transparent Al₂O₃ layer positioned on a thin PET substrate and is suitable for use as transparent food packaging.